



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,988	11/13/2001	Harvey S. Cohen	2000-0325	7599

7590 03/17/2006
Samuel H. Dworetsky
AT&T CORP.
P.O. Box 4110
Middletow, NJ 07748-4110

EXAMINER

VO, HUYEN X

ART UNIT PAPER NUMBER

2655

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/992,988

Applicant(s)

COHEN ET AL.

Examiner

Huyen X. Vo

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 14-24 and 33 is/are rejected.
- 7) ☒ Claim(s) 6-13 and 25-32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/13/2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the specific steps of determining any portion of the user's message that contains important information or phonemes or domain-related information and estimating intelligibility of the determined portion, and calculating percentage of words in the user's message that correlates to words in the domain library and comparing the calculated percentage with intelligibility threshold as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required

Art Unit: 2655

corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 14-24, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bayya et al. (US Patent No. 5684921) in view of Bossemeyer, Jr. (US 6249760).

4. Regarding claims 1, 17, and 20, Bayya et al. disclose a method, apparatus, and computer-readable medium for verifying that a message received from comprising: receiving the message from the user (*col. 110 in figure 1*); measuring a speech level of the user's message (*element 112 in figure 1*); determining whether the measured speech level of the message is below a pre-determined speech level threshold (*col. 4, line 54 to col. 5, line 21*); measuring a signal-to-noise ratio of the user's message (*col. 4, lines 1-35*); determining whether the measured signal-to-noise ratio of the message is below a pre-determined signal-to-noise ratio threshold (*col. 5, lines 17-21*); calculating an estimate of intelligibility for the user's message (*col. 5, lines 1-21*); and determining

whether the calculated estimate of intelligibility is below an intelligibility threshold (*col. 5, lines 1-21*); and transmitting a signal to user indicating noise level (*element 118 in figure 1*). Bayya et al. fail to specifically disclose the step of prompting the user to repeat at least a portion of the message if any of the measured speech level, measured signal-to-noise ratio and calculated estimate of intelligibility of the user's message are determined to be below their respective thresholds. However, Bossemeyer, Jr. teaches the step of prompting the user to repeat at least a portion of the message if any of the measured speech level, measured signal-to-noise ratio and calculated estimate of intelligibility of the user's message are determined to be below their respective thresholds (*the operation of figure 11, whenever the SNR falls below a certain threshold value, the user is prompted to repeat*).

Since Bayya et al. and Bossemeyer, Jr. are analogous art because they are from the same field of endeavor, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Bayya et al. by incorporating the teaching of Bossemeyer, Jr. in order to enable user to repeat request/command for system. The advantage of this is to improve speech recognition accuracy by avoiding incorrect recognition of noise-corrupted input speech.

5. Regarding claims 2-5, 18-19, and 21-24, Bayya et al. further disclose the method, apparatus, and computer-readable medium of claims 1, 17, and 20, respectively, further comprising: converting the user's message from an analog signal to a digitized signal that represents the user's message (*ADC is inherent in digital system*

Art Unit: 2655

of figure 1), if none of the measured speech level, measured signal-to-noise ratio and calculated estimate of intelligibility are determined to be below their respective thresholds, storing the message (*col. 4, line 20 to col. 5, line 21*), if the measured speech level of the message is below the pre-determined speech level threshold, prompting the user to repeat at least the portion of the message in a higher volume (*col. 4, line 20 to col. 5, line 21*), and if the calculated estimate of intelligibility is below the intelligibility threshold, prompting the user to repeat at least the portion of the message slowly (*col. 4, line 20 to col. 5, line 21*).

6. Regarding claims 14-15, Bayya et al. further disclose the method of claim 1, wherein the user's message is in English and/or in a foreign language (*the system of Bayya et al. can be applied to any languages*).

7. Regarding claims 16 and 33, Bayya et al. further disclose the method and apparatus of claims 1 and 20, respectively, further comprising: in any of the measured speech level, measured signal-to-noise ratio and calculated estimate of intelligibility of the user's message are determined to be below their respective thresholds, replaying at least the portion of the message back to the user (*col. 4, line 20 to col. 5, line 67*).

Allowable Subject Matter

8. Claims 6-13 and 25-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Connor (US 6477492) teaches a system for automated testing of perceptual distortion of prompts from voice response systems that is considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huyen Vo whose telephone number is 571-272-7631.

The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HXV

3/14/2006


RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER